

Appl. No. 10/037,670
Amdt. dated 11/30/2005
Reply to Office Action of 08/29/2005

REMARKS

This Amendment is in response to the Office Action mailed 08/29/2005. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Summary of Telephonic Interview

Applicant thanks the Examiner for the courtesy of a telephonic interview on September 16, 2005. Applicant had previously inquired as to whether the rejection of claims 46, 52-60, 64, and 66-71 under 35 U.S.C. § 101 issued in the Office Action of 08/29/2005 represented a change in USPTO policy regarding propagated signal claims. The Examiner investigated the current policy regarding such claims and advised the applicant that at the time the Office Action was prepared a USPTO policy had been issued advising Examiners to reject propagated signals claims as non-statutory subject matter under 35 U.S.C. § 101. The Examiner further advised the applicant that subsequently the USPTO position on propagated signals claims was revised to consider such claims as statutory subject matter. The Examiner agreed to withdraw the rejection of claims 46, 52-60, 64, and 66-71 under 35 U.S.C. § 101.

On October 26, 2005 the USPTO issued "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" that discuss *inter alia* "a claim reciting a signal encoded with functional descriptive material." [pages 55-57] "These interim guidelines propose that such signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of § 101." [page 57] In view of these Guidelines, applicant conducted a second telephonic interview with the Examiner on November 29, 2005. It was agreed that the Examiner would reinstate the rejection of claims 46, 52-60, 64, and 66-71 under 35 U.S.C. § 101 as originally set forth in the Office Action of 08/29/2005.

Rejection Under 35 U.S.C. § 112

3. The Examiner rejects claims 1 and 7-14 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rejected based on lack of positive antecedent basis of "the shared resource." Applicant has amended claim 1 to replace "shared resource" with --component-- for which there is antecedent basis.

Claims 7-14 are rejected because they depend on claim 1.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 1 and 7-14 under 35 U.S.C. § 112, second paragraph.

Rejection Under 35 U.S.C. § 101

4. The Examiner rejects claims 46, 52-60, 64, and 66-71 under 35 U.S.C. § 101 because the Examiner considers that these claims are not limited to tangible embodiments. In view of applicant's disclosure, Patent Application Publication US 2003/0135677 A1, paragraph [0023],

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the Examiner asserts that the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g. RAM, ROM, magnetic or optical storage media, or flash memory devices) and intangible embodiments (e.g. electrical, optical, acoustical or other form of propagated signals (e.g., carrier waves, infrared signals, digital signals)). As such, the Examiner concludes that the claims are not limited to statutory subject matter and are therefore non-statutory.

As discussed above, the USPTO's position with regard to the patentability of "a claim reciting a signal encoded with functional descriptive material" is in a state of flux. Applicant is responding to this rejection based on the USPTO position as set forth on pages 55-57 of the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" as issued on October 26, 2005.

Claims 46, 52-60, 64, and 66-71 are directed to, "An article of manufacture comprising a machine-accessible medium..." Applicant respectfully submits that the proper construction of these claims is as claims to that subset of articles of manufacture that comprise a machine-accessible medium as defined by the specification, i.e. any mechanism that provides information in a form readable by a machine. To the extent that the specification may provide examples of machine-accessible media that are not articles of manufacture, it is the applicant's position that such examples are not claimed. For the purpose of providing a record that gives clear notice of the scope of the invention that the applicant claims, applicant intends to claim the broadest scope of machine-accessible media permissible at the time the claims are construed, namely any article of manufacture that provides information in a form readable by a machine.

Since the claims are limited to an article of manufacture by their own terms and an article of manufacture is clearly patentable subject matter under 35 U.S.C. § 101, applicant respectfully requests that the Examiner withdraw the rejection of claims 46, 52-60, 64, and 66-71 under 35 U.S.C. § 101 as lacking patentable utility.

Rejection Under 35 U.S.C. § 102

6. The Examiner rejects claims 1, 7, 10, 11, 13-15, 22-24, 27, 33-36, 46, 52, 55, 56, 58-60, 66-67, 70 and 71 under 35 U.S.C. § 102(b) as being anticipated by Buch (5,669,002).

As to claim 1, in "Response to Arguments" the Examiner responds to applicants previous argument that Buch does not show that the request provides the identifier to be written and/or that the request in Buch does not comprise an identifier of the first requester by asserting that these limitations are not contained in the claims other than claim 72. Applicant has amended claim 1 to make clear that the request comprises an identifier of the first requester that is written to a set-by-write register to reduce access to the component and to permit access to the component by the first requester. Applicant respectfully submits that the claim as amended clearly distinguishes the present invention from the disclosures of Buch as previously argued. Further, the claim as amended clearly distinguishes the present invention from the disclosures of Shagam. The Examiner asserts that Shagam discloses the second value which is the identity of the requester is written to the register to indicate that the requester has obtained access and other requesters are not allowed to access the resource (col. 3, lines 5-33, col. 5, line 52 - col. 6, line

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24, and col. 7, lines 41-64). Applicant respectfully disagrees. Applicant understands Shagam to disclose a two part locking mechanism. In the first part, the memory receives a read lock operation causing the identity of the requester to be placed in a reservation table. In the second part, the memory receives a conditional write operation that includes the identity of the requester. The memory compares the identity of the requester in the conditional write with the identity of the requester in the reservation table. If the requester identified in the conditional write is the same as the requester identified in the reservation table, then the lock record is overwritten to lock the resource and the reservation table is cleared. Nothing in Shagam discloses that the identity of the requester is written to the lock record as claimed. The distinct difference between the method disclosed by Shagam and the present invention is demonstrated by the necessity for a preparatory read lock operation in the method disclosed by Shagam while the present invention requires no such preparatory operation.

As to claim 7, applicant has amended the claim to be consistent with the amendments of parent claim 1. Applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As to claim 10, the Examiner asserts that Buch discloses further comprising receiving, by execution of a write request by a second requester upon completion of access to the component by the second requester, a third indicator (i.e., G0 vector) increasing access to the component to replace the second indicator. Applicant respectfully disagrees. Buch discloses that exclusive access is terminated by a simple write (col. 2, lines 50-59). Applicant has amended the claim to be consistent with the amendments of parent claim 1. Buch does not disclose a write request of a value indicating that the shared resource is available as now claimed.

As to claims 11, 13, and 14, applicant has cancelled the claims.

b. As to claims 15, 22-24, 60, 66, 67, 70 and 71, the Examiner rejects the claims on the same basis as claims 1, 7, 10 and 13. Claims 15 and 60 have been amended similarly to claim 1 and applicant traverses the rejection on the same basis as claim 1. Claims 22 and 67 have been amended similarly to claim 7 and applicant traverses the rejection on the same basis as claim 7. Claims 25 and 70 have been amended similarly to claim 10 and applicant traverses the rejection on the same basis as claim 10. Claims 26, 66, and 71 have been cancelled. Claims 23 and 24 correspond to claims 8 and 9 and are discussed below in connection with the rejection of those claims.

c. As to claim 27, the claim has been amended similarly to claim 7 and applicant traverses the rejection on the same basis as claim 7. The elements of claim 30 have been added to claim 27 and claim 30 has been cancelled.

As to claims 33-36, applicant relies on the patentability of the claims from which these claims depend to traverse the rejection without prejudice to any further basis for patentability of these claims based on the additional elements recited.

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f. As to claims 46, 52, 55, 56, 58, and 59, the Examiner rejects the claims on the same basis as claims 1, 7, 10, 13, and 14 above. Claim 46 has been amended similarly to claim 1 and applicant traverses the rejection on the same basis as claim 1. Claim 52 has been amended similarly to claim 7 and applicant traverses the rejection on the same basis as claim 7. Claims 55 has been amended similarly to claim 10 and applicant traverses the rejection on the same basis as claim 10. Claims 56, 58, and 59 have been cancelled.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 1, 7, 10, 11, 13-15, 22-24, 27, 33-36, 46, 52, 55, 56, 58-60, 66-67, 70 and 71 under 35 U.S.C. § 102(b) as being anticipated by Buch (5,669,002).

Rejection Under 35 U.S.C. § 102

8. The Examiner rejects claims 27, 32, 72-74, and 77-80 under 35 U.S.C. § 102(b) as being anticipated by Shagam (5,987,550).

As per claim 27, the Examiner asserts that Shagam discloses the second value which is the identity of the requester is written to the register to indicate that the requester has obtained access and other requesters are not allowed to access the resource (col. 3, lines 5-33, col. 5, line 52 - col. 6, line 24, and col. 7, lines 41-64). Applicant respectfully disagrees. Applicant understands Shagam to disclose a two part locking mechanism. In the first part, the memory receives a read lock operation causing the identity of the requester to be placed in a reservation table. In the second part, the memory receives a conditional write operation that includes the identity of the requester. The memory compares the identity of the requester in the conditional write with the identity of the requester in the reservation table. If the requester identified in the conditional write is the same as the requester identified in the reservation table, then the lock record is overwritten to lock the resource and the reservation table is cleared. Nothing in Shagam discloses that the identity of the requester is written to the lock record as claimed. The distinct difference between the method disclosed by Shagam and the present invention is demonstrated by the necessity for a preparatory read lock operation in the method disclosed by Shagam while the present invention requires no such preparatory operation. Applicant has amended the claim to make clear that the request comprises the identifier of the first requester.

As for claim 32, the Examiner asserts that Shagam discloses that the shared resource comprises a peripheral device in a computer system and the peripheral device contains the register (fig. 1, (16a) and fig. 2, wherein the shared memory is peripheral to the multiple processors). Applicant respectfully disagrees. Applicant respectfully submits that a peripheral device is understood by those of ordinary skill in the art to a piece of hardware connected to a computer outside the CPU and working memory (see attached "High-Tech Dictionary" from www.computeruser.com). A memory, including a memory shared by multiple processors as disclosed by Shagam, is more tightly integrated with the CPU(s) than a peripheral device. A mechanism that provides locking using a memory will not necessarily be usable with a peripheral device because of the more limited connection between a CPU and a peripheral device.

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As per claim 72, applicant has amended the claim to provide that the second value comprises an identifier of a requester. The claim as amended is similar to claim 27 and applicant traverses the rejection on the same basis as discussed above.

As for claim 73, applicant traverses on the same basis as for claim 32 discussed above.

As for claim 74, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As for claim 77, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As for claim 78, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As for claims 79 and 80, the Examiner asserts that Shagam also shows that the storage area is linked to other storage areas containing the first value and that the other storage areas change the first value to the second value when the storage area changes the first value to the second value (at least in col.3, lines 5-33, col.5, line 52 - col.6, line 24, and col.7, lines 41-64). Applicant fails to understand how the cited portions of Shagam disclose linked storage areas as described in applicant's disclosure, Patent Application Publication US 2003/0135677 A1, paragraphs [0039] - [0042].

Applicant respectfully requests that the Examiner withdraw the rejection of claims 27, 32, 72-74, and 77-80 under 35 U.S.C. § 102(b) as being anticipated by Shagam (5,987,550).

Rejection Under 35 U.S.C. § 103

10. The Examiner rejects claims 19, 41, 43-45, and 64 under 35 U.S.C. § 103(a) as being unpatentable over Buch (5,669,002).

a. As to claims 19, 41, and 64, applicant has cancelled these claims.

d. As to claim 43, applicant has cancelled this claim.

e. As to claims 44 and 45, applicant relies on the patentability of the claims from which these claims depend to traverse the rejection without prejudice to any further basis for patentability of these claims based on the additional elements recited.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 19, 41, 43-45, and 64 under 35 U.S.C. § 103(a) as being unpatentable over Buch.

11. The Examiner rejects claims 12, 37, and 57 under 35 U.S.C. § 103(a) as being unpatentable over Buch (5,669,002) in view of Montgomery et al. (6,529,933).

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- a. As to claims 12 and 57, applicant has cancelled these claims.
- b. As to claim 37, the claim has been amended similarly to claim 1 and applicant traverses the rejection on the same basis as claim 1.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 12, 37, and 57 under 35 U.S.C. § 103(a) as being unpatentable over Buch in view of Montgomery.

12. The Examiner rejects claims 8, 9, 23, 24, 53, 54, 68 and 69 under 35 U.S.C. § 103(a) as being unpatentable over Buch (5,669,002) in view of Marshall et al. (6,529,983).

a. As to claims 8, 23, 53, and 68, applicant relies on the patentability of the claims from which these claims depend to traverse the rejection without prejudice to any further basis for patentability of these claims based on the additional elements recited.

b. As to claims 9, 24, 54, and 69, applicant relies on the patentability of the claims from which these claims depend to traverse the rejection without prejudice to any further basis for patentability of these claims based on the additional elements recited.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 8, 9, 23, 24, 53, 54, 68 and 69 under 35 U.S.C. § 103(a) as being unpatentable over Buch in view of Marshall.

Conclusion

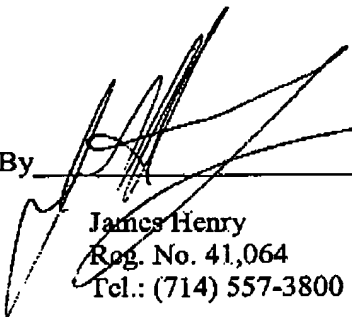
Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 11/30/2005

By


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Attachment: "High-Tech Dictionary" from www.computeruser.com

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RESULTS Definition for: peripheral device

SEARCH

Exact Match

peripheral device

Any piece of hardware connected to a computer; any part of the computer outside the CPU and working memory. Some examples of peripheral devices are keyboards, mice, monitors, printers, scanners, disk and tape drives, microphones, speakers, joysticks, plotters, and cameras.

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